

**Question #207****Answer: D**

$$\begin{aligned} \overset{\circ}{e}_{30:\overline{50}|} &= \frac{\int_{30}^{80} s(x) dx}{s(30)} = \frac{\int_{30}^{80} \left(1 - \frac{x^2}{10,000}\right) dx}{1 - \left(\frac{30}{100}\right)^2} \\ &= \frac{\left(x - \frac{x^3}{30,000}\right) \Big|_{30}^{80}}{0.91} \\ &= \frac{33.833}{0.91} \\ &= 37.18 \end{aligned}$$